Current Claims:

There are no amendments to the claims. This listing of claims will reflects the current version of the claims in this application:

Listing of Claims:

Claim 1 (**previously presented**): A sedation and analgesia system, comprising:

two or more patient health monitor devices adapted so as to be coupled to a patient and so as to each generate a signal reflecting one or more physiological conditions of the patient wherein the operating principle of each of said monitors is different and at least two of said patient health monitor devices provide orthogonally redundant information regarding at least one of said physiological conditions;

a user interface;

a drug delivery controller supplying one or more drugs to the patient;

one or more effector for ensuring patient safety and clinician awareness; and

an electronic controller including parameters of at least one of said monitored patient physiological conditions, said electronic controller interconnected with the patient health monitors, the user interface, the drug delivery controller, and the effector, wherein said electronic controller receives said signals, compares said signals to ascertain whether the monitored data is reliable by determining if the monitors are in agreement, and controls the effector based on the results of the comparison and in accordance with the parameters.

Claim 2 (**original**): The sedation and analgesia system of claim 1, wherein the patient health monitor devices are of different types.

Claim 3 (**original**): The sedation and analgesia system of claim 2, wherein the patient health monitor devices each generate a signal reflecting a similar physiological condition of the patient.

Claim 4 (**original**): The sedation and analgesia system of claim 3, wherein at least one of said patent health monitor devices provides high sensitivity and at least one other patient health monitor device provides high specificity.

Claim 5 (**original**): The sedation and analgesia system of claim 1, wherein the monitors gather data regarding a physiological condition of the patient independently of one another.

Claim 6 (**original**): The sedation and analgesia system of claim 1, wherein the patient health monitoring devices comprise two or more major monitors and at least one minor monitor, said major monitors being integrated into the decision making processes of the sedation and analgesia system and said minor monitors presenting data to the clinician.

Claim 7 (**original**): The sedation and analgesia system of claim 1, wherein at least some of said patient health monitor devices are ascribed point values as to at least one of their importance and accuracy in monitoring a patient parameter.

Claim 8 (**original**): The sedation and analgesia system of claim 1, wherein said effector includes at least one of decreasing a drug target concentration, increasing a drug target concentration, delivering positive airway pressure, triggering said monitors to cull more information, alarming, changing drugs, delivering oxygen, and initiating pre-alarms based on trends that indicate an imminent negative patient condition.

Claim 9 (**previously presented**): A sedation and analgesia system, comprising:

first means for monitoring health of a patient,

second means for monitoring health of said patient, wherein said second means is different from said first means and wherein each of said first and second monitoring means generate a signal reflecting one or more physiological conditions of the patient wherein said first and second means provide orthogonally redundant information regarding at least one of said physiological conditions;

a user interface;

a drug delivery controller supplying one or more drugs to the patient;

one or more effector for ensuring patient safety and clinician awareness; and

an electronic controller interconnected with the monitoring means, the user interface, the drug delivery controller, and the effector, wherein said electronic controller receives said signals,

compares said signals to ascertain whether the monitored data is reliable by determining if the monitors are in agreement, accesses parameters of at least one of said monitored patient physiological conditions, and controls the effector based on the results of the comparison and in accordance with the parameters.

Claim 10 (**withdrawn**): A method for providing orthogonal redundancy in sedation and analgesia system, comprising:

providing multiple monitors of a single patient parameter, wherein said monitors transmit patient data regarding said parameter;

monitoring the patient parameter with the monitors;

ascertaining whether any of the data transmitted from the patient monitors is outside a predetermined safety data set;

if none of the data is outside of the safety data set, providing normal sedation and analgesia system functionality;

if at least some of the data is outside of the safety data set, ascertaining whether the monitors are in agreement as to whether the data is outside of the safety data set; and

if the monitors are in agreement that data is outside the safety data set, initiating effectors associated with sedation and analgesia system.

Claim 11 (**withdrawn**): The method of claim 10, further comprising the steps of:

if the monitors are not in agreement that data is outside of the safety data set, gathering additional information from patient monitors, and ascertaining whether the data from at least one monitor remains outside of the safety data set; and

if the monitors remain not in agreement that data is outside of the safety data set, initiating a separate predetermined protocol.

Claim 12 (**withdrawn**): The method of claim 11, wherein said separate predetermined protocol comprises alerting a clinician.

Claim 13 (**withdrawn**): The method of claim 12, wherein confirmation of said clinician is required to initiate an effector.

Claim 14 (**withdrawn**): The method of claim 10, wherein said effectors include at least one of decreasing a drug target concentration, increasing a drug target concentration, delivering positive airway pressure, triggering said monitors to cull more information, alarming, changing drugs, delivering oxygen, and initiating pre-alarms based on trends that indicate an imminent negative patient condition.

Claim 15 (**withdrawn**): A method for employing an orthogonally redundant system for use with a sedation and analgesia system, comprising:

providing multiple monitors, wherein such monitors are ascribed point values as to at least one of their importance and accuracy in monitoring a patient parameter;

monitoring the patient parameter with the monitors;

ascertaining whether any of the data transmitted from the patient monitors is outside a predetermined safety data set; and

if none of the data is outside of the safety data set, providing normal sedation and analgesia system functionality.

Claim 16 (**withdrawn**): The method of claim 15, further comprising the steps of:

if at least some of the data is outside the safety data set, ascertaining whether the ascribed point values of monitors indicating a potentially dangerous patient condition add up to a number greater than a pre-determined threshold; and

if the sum of the ascribed point values exceed a predetermined value, initiating effectors associated with the sedation and analgesia system.

Claim 17 (**withdrawn**): The method of claim 16, wherein said effectors include at least one of decreasing a drug target concentration, increasing a drug target concentration, delivering positive airway pressure, triggering said monitors to cull more information, alarming, changing drugs, delivering oxygen, and initiating pre-alarms based on trends that indicate an imminent negative patient condition.